Appl. No. 09/833,845
Amdt. dated November 8, 2007
Office Action of August 8, 2007

**PATENT**

## REMARKS

Claims 1, 4-8, and 10-13 are pending after entry of the present Amendment. Applicants respectfully request reconsideration of the application in view of the following remarks submitted in support thereof.

**Rejections under 35 U.S.C. § 103(a):**

Claims 1, 4-8, and 10-13 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Ma et al. (U.S. Patent 5,920,725) (hereinafter "Ma"), in view of Ferguson et al. (U.S. Patent 6,976,079) (hereinafter "Ferguson"), and in further view of Arnaiz et al. (U.S. Patent 7,080,371) (hereinafter "Arnaiz"). This rejection is respectfully traversed.

Ma's teachings are directed to a distributed system, which executes objects both on the server side and the client side. As noted by the Examiner, Ma does not explicitly suggest or teach *generating an upgraded control module in place* defining upgraded application-specific policies relative to the original control module *while the application is providing online execution services* or *maintaining a recoverable state of the upgraded control module* at a state server.

Although Ferguson teaches a method for upgrading software applications, the teachings of Ferguson does not disclose generating an upgraded control module in place while the application is providing online execution services to client requests. Ferguson discloses a distributed computing environment, wherein a first application server *re-directs* any new requests for a software to-be-upgraded on a server to-be-upgraded *to a second application server* using a router and *then begins generating* upgraded control module and upgraded service module (which is actually list of software modules and servers to be upgraded) for upgrading the software application (service module) and the server application (control module) on the server to-be-upgraded. *(See Figure 3, steps 76 and 78 and related description in column 5, lines 27-40).* Further, if the software on the first application server is servicing an active client request, the system **waits** till the application server is no longer servicing the active client request *before generating* and upgrading the upgraded control module and upgraded service module. *(See Col. 5, lines 48-52).* In contrast, the claimed invention generates the upgraded control module and upgraded service module in place on the same server while the application is still servicing active client requests. This is done by instantiating the original control module and loading new class files for the upgraded control module. The application then redirects new client requests to the upgraded control module

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by disabling requests to the old control module/old service module and enabling requests to the upgraded control module/upgraded service module and/or allows the existing client requests to complete before disabling the old control module/old service module. *(See Figures 17-19 and their related description on pages 33-36).*

Examiner's comment that combining Ferguson with Ma would have been obvious is based on the teachings of the claimed invention. Combining Ferguson with Ma is not obvious as Ferguson requires the active client requests to complete and new requests to be re-directed prior to generating an upgraded control module and upgraded service module, delaying the software upgrade process. Further, the generation of the upgraded control module and upgraded service module in Ferguson does not actually contain updated class files but provides a list of what software modules are to-be-upgraded and which servers need to-be-upgraded which is different from the upgraded control module and upgraded service module of the claimed invention. The upgraded control module and upgraded service module of the claimed invention include the updated class files. The Examiner's reasoning that combining the teachings of Ferguson (with Ma) would be obvious in order "to generate an upgraded control module in Ma, so as to provide new or more reliable functionality in that module", (see page 5, paragraphs 4 of the Office Action) does not hold true as the teachings of Ferguson would actually degrade the functionality of Ma due to the additional waiting period associated in generating the upgraded control module and service module. (See paragraphs 2 and 3 on page 3 of the Office action, in Ferguson, *"the system waits until the application server finishes servicing those requests before performing the upgrades. Likewise, instead of disrupting new requests, the system redirects those requests to another application server while performing the upgrades"*).

Applicant submits that the nature of the rejection does not amount to a *prima facie* showing of the obvious of the claimed invention, because it does not satisfy the conditions of the Federal Circuit when rejecting a claim. The Supreme Court (Court) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit, *In re KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S., 82 USPQ2d 1385 (2007). The Court in KSR quoted *In re Kahn*, which stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (emphasis added).

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It is respectfully pointed out that the rational provided by the Office is not supported by the teachings of the art and fail to provide rational underpinnings to support the Section 103 rejection.

In contrast, the claimed invention proceeds to upgrade the control module and service module *in place* (i.e. on the same server) by instantiating old control module and old service module and loading with class files from database repository to generate upgraded control module and upgraded service module *while active client requests are being serviced*. Upon generating upgraded control module and upgraded service module, new client requests are redirected to the upgraded control module and upgraded service module making the upgrade almost seamless while allowing the existing client requests to complete using the old control and service modules prior to disabling the old control and service modules. (*See Figures 17, 18 and 19 and the related description*).

Arnaiz does not cure any of the deficiencies of Ma and Ferguson. Arnaiz deals with automatic upgrade of software components of an application on a client. Like Ferguson, in order to upgrade the software components on the client, the server sends shutdown messages to all currently active server components, waits for all server components to stop, then, invokes the upgrade wizard and exits. Similarly, the client invokes an upgrade wizard to upgrade the software on the client and exits. (*See column 6, lines 40-45*). Combining the teachings of Arnaiz with the teachings of Ma and Ferguson will not suggest or teach each and every element of the claimed invention as the combination does not suggest or teach generating an upgraded control module and upgraded service module on the server while the application is providing online execution services so that upgrades can be performed in place with no disruption in service.

As can be seen from the above arguments, the combined teachings of Ma, Ferguson and Arnaiz do not provide each and every feature of the amended independent claims 1 and 8. For at least the reasons noted herein, the Applicants respectfully submit that the now claimed invention is patentable over the cited art.

Claims 4-7 and 10-13 are directly dependent on independent claims 1 and 8 respectively. Based on arguments presented for independent claims 1 and 8, Applicants submit that the dependent claims are patentable and request the Examiner to withdraw the 35 U.S.C. §103(a) rejections on claims 4-7 and 10-13. A Notice of Allowance is respectfully requested.

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If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6905. If any other fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. SUNMP003). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, LLP

Jayanthi Minisandram
Reg. No. 53,330

710 Lakeway Drive, Suite 200
Sunnyvale, CA 94085
Telephone: (408) 749-6905
Facsimile: (408) 749-6901
Customer No. 32291